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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,913	11/13/2001	Satoshi Gocho	1186.1020	6641

21171 7590 12/29/2003

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EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 12/29/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,913

Applicant(s)

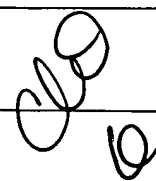
GOCHO ET AL.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

Applicant's amendment and accompanying remarks filed October 10, 2003 have been acknowledged. Examiner acknowledges amended claims 1, 6, 9, 11, 15 and 21. Examiner acknowledges newly added claims 32-34. The objection to claims 6 and 26 are withdrawn due to applicant's amended claims 6 and 26. The rejection of claims 1, 9 and 21 under 35 U.S.C. 112, second paragraph is withdrawn due to applicant's amended claims 1, 9 and 21. The new claims 26-34 have been renumbered as 27-35 pursuant to 37 CFR 1.126 and will hereafter be referred to as such.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 9, 21, 33, 34, 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 9, 21, 33, 34, 35 contain the limitation, "no polarizing member thereon" to the latent image. Any negative limitation or exclusionary proviso must have basis in the original disclosure. The original disclosure does not mention a latent image does not comprise a polarizing member as recited in amended claims 1, 9, 21, 33, 34, 35. These new limitations do not have basis in the original disclosure.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,284,337 to Lorimor et al. in view of USPN 5,800,950 to Hirao et al., JP 03118198 to Kijima et al., and USPN 6,111,696 to Allen et al.

8. Lorimor teaches a durable security laminate with a heat shrinkable layer. Lorimor's laminate comprises an emblem layer with liquid crystal polymers or pearlescent pigments such as titania. The emblem layer is either on the protective layer (claim 6) or low adhesion coating. This emblem layer may be hidden (latent image formation layer) or visible. See col. 5, lines 1-15. The protective layer is made of the same materials as Applicant claims, see col. 4, lines 20-25, and hence has the same associated light transmissivity/scattering properties of instant claims 6, 7, 15, 16, 26, & 27. Lorimor teaches an adhesive layer also (sticky base layer) at col. 5, lines 53-68 on the protective layer/emblem layer. Lorimar teaches a light reflective substrate with a light reflective surface, such as paper Example 1 (claim 9). Also in Example 1 Lorimar teaches a laminated card (laminated structure of an information-recorded substrate) (claim 11). Regarding claim 30, Lorimor teaches in Example 1 adhesive (base) coated on a silicone release liner (release layer). Lorimor does not teach that the liquid crystalline polymer is arranged wherein the nematic or smectic molecular configuration is as in instant claims 1, 6, 9, 11, 21 and 26.

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Hirao teaches a recording element that is laminated and has the polymer, which is capable of forming a liquid crystal phase having a nematic or smectic molecular configuration. It would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include liquid crystals arranged nematically or smectically as instant claims require because Hirao teaches such arrangement is conventional for liquid crystals as shown in Figures 9 and 10 for the purpose of providing optical ionization as taught by Hirao at col. 20, lines 1-30.

9. While Lorimor teaches the emblem layer may be a hologram/light reflective optical layer, Lorimor does not teach *per se* an additional optical layer (claims 4, 5, 12, 13, 14, 23, 24, & 25). While Lorimor teaches a liquid crystalline polymer, Lorimor is also silent to a thermotropic type of liquid crystalline polymer (claims 2, 10, & 22). The reason Lorimor includes a liquid crystalline polymer is to change colors with the viewing angle. See col. 5, lines 14-15. Kijima teaches a card and image forming method having a metal reflecting layer (optical layer having light reflectivity), a liquid crystal polymer layer of a thermotropic type, and polarizing film laminated to a card base. See Abstract. Figure 1 shows the optical layer on the latent image liquid crystal polymer layer (instant claim 4). Hence one would be motivated to provide a thermotropic type of liquid crystalline polymer and optical layer to the laminate of Lorimor since Kijima teaches the application of such layers are conventional enabling a card capability of preventing forgery and the liquid polymer provides the appropriate melting point as taught by Kijima in the Abstract.

10. While Lorimor teaches in Example 1 a hologram and aluminum reflector (light reflective substrate) over the low adhesion coating, Lorimor does not teach the light reflective substrate and laminated card having an optical layer facing the latent image (claim 11). However, Kijima

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teaches the optical layer on the latent image liquid crystal polymer layer, laminated to a card base. Hence it would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include the structure of instant claim 11 since Kijima teaches the application of such layers are conventional enabling a card capability of preventing forgery as taught by Kijima in the Abstract.

11. While Lorimor teaches a low adhesion coating, Lorimor does not teach the laminate structure as in instant claims 17-19, 28-29. Also at col. 27, lines 48-50, Allen teaches adhesives may be used to laminate optical films to another film, surface, or substrate (claims 17-19, 28-29). Hence, it would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include a light reflective substrate having a light reflective surface to include the structure of instant claim 11 and a base adhesive layer of instant claims 17-19, 28-29 adjacent and/or between layers since Allen teaches one would employ adhesives to laminate optical films to another film, surface, or substrate as cited above.

12. Lorimor teaches a polarizing film, but is silent to the shape of the polarizer of claims 8, 20, and 31. Allen teaches a polarizer in an elliptical shape at col. 9, lines 41-43. "Elliptical" is synonymous to "circularly". Therefore, it would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include a polarizer in a circularly shape since Allen teaches elliptical polarizers have a small index of refraction, achieving high sensitivity at col. 9, lines 50-55.

13. Regarding the orientation/non-orientation of the latent image, while Lorimor does not teach orientation of an image, Allen teaches at col. 2, lines 35-40 it is known to blend and

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disperse liquid crystal polymers in a continuous phase and axes aligned. The Examiner takes the position that the two phenomena are equivalent.

Response to Arguments

14. Applicant's arguments with respect to claim 1-31 have been considered but are moot in view of the new ground(s) of rejection. Lorimar, Kijima, and Allen are still used in this rejection as they provide the structure, reflectivity requirements, and elliptical shape as Applicant claims, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus
Examiner
Art Unit 1774

December 19, 2003


ELIZABETH MULVANEY
PRIMARY EXAMINER